SOME NEW INSTRUMENTS FOR OCEANOGRAPHICAL RESEARCH.

SUPPLEMENTAL NOTE.

In the April, 1917, issue of this REVIEW, p. 159 ffg., appears an interesting contribution on the above subject by Dr. Hans Pettersson. As there stated in footnote 3 on page 162, the author's Table 1 and one illustration had been delayed in the mails. We here print both the missing items.

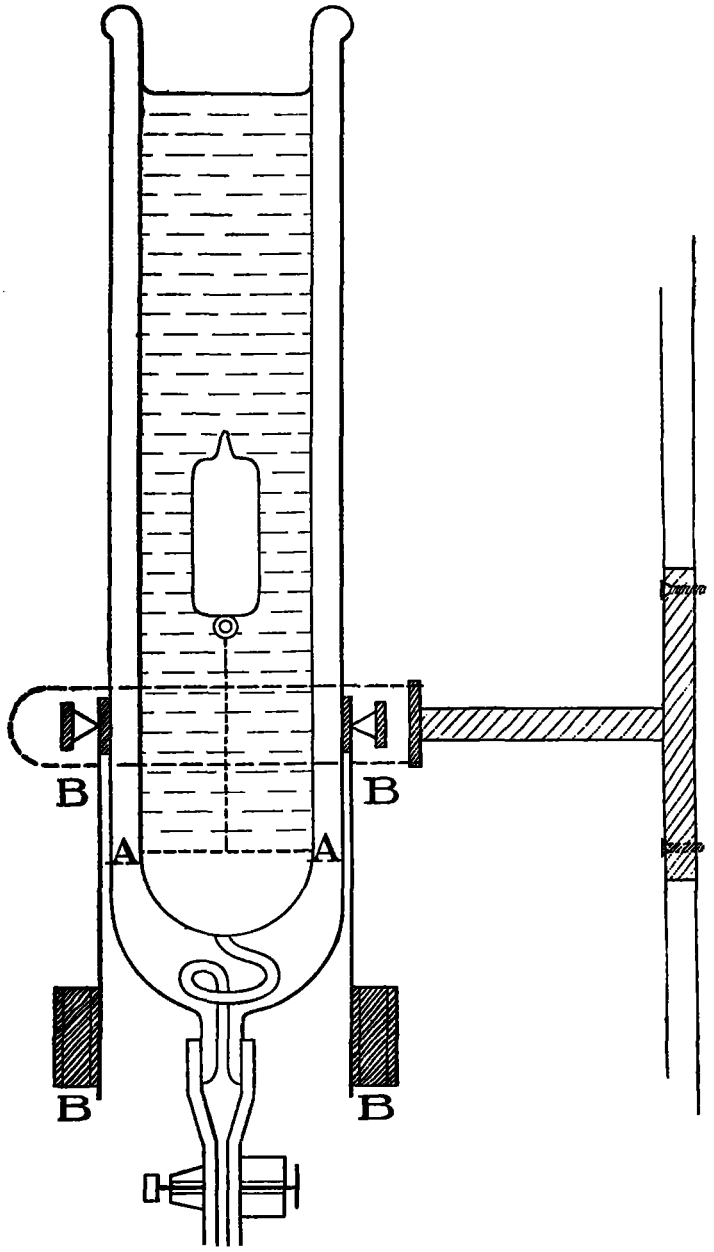

FIG. 5.—H. Pettersson's precision chain-compensated areometer, with gimbal suspension.
BBBB, gimbal mounting with counterpoises.
AA, Dewar flask vessel with float and chain.

The interested reader will recall that on page 162, column 2, Dr. Pettersson mentions a gimbal-mounted precision chain-compensated areometer of about 800 cu. cm. capacity suitable for the accurate daily work on shipboard of an hydrographical expedition. This instrument is here illustrated in figure 5.

TABLE 1.—*Observations with chain-compensated gimbal areometer.*

Depth.	Temperature.	Areometer reading.	Salinity (thousandths).	
			Observed.	Calculated.
meters.	°*C.*			
0	12.35	102	(29.51)	29.51
10	12.25	129.5	30.11	30.08
20	12.00	179.5	31.38	31.32
30	11.70	248	32.77	32.74
40	11.50	278	32.95	32.95
50	11.05	267	(33.06)	33.06
60	11.32	244	33.08	33.06

The work of this instrument is illustrated by Table 1, wherein the salinity (in thousandths), as observed with the instrument, is compared with the computed values.—*Editor.*

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HAIL SQUALL OF MAY 1, 1917, AND ACCOMPANYING WEATHER, BALTIMORE, MD.

By Dr. LEONARD KEENE HIRSHBERG.

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For 60 hours before the hail squall here discussed there had been a mean, sluggish wind blowing across Baltimore from the east and southeast. Some humans seemed to be unpleasantly affected during those two and a half days. They seemed to be soggy, with uncomfortable chilly sensations and "headachy." As one intelligent gentleman of 40, supposedly in good health, reported, when he went to bed on those two nights the back of his house—turned toward the southeast—had a chill, unpleasant draught through it which seemed to be blowing faster than the 12 to 15 miles an hour indicated on the Weather Bureau anemometer. In his bedroom, at the front (northwest side) of his house, his usual blanket spread with two sheets, seemed too heavy and caused him to sweat like a consumptive. However, when he threw off either the sheets or the blanket he felt chilly and achy. Others also complained of much the same feelings during these two days.

On the afternoon of May 1 the writer went to the roof of a high building situated on a hill in the heart of Baltimore. The sun had shone in some fashion all these 60 hours, albeit not very clearly or brilliantly. As I looked over the city at 1:15 p. m. on this date I suddenly noticed that all the flags flying north of Lombard Street, which runs due east and west, drooped, while the flags flying at points south of that street continued to float pointing due northwest (southeast wind) as they had been doing for the past 60 hours. At the instant I called the attention of my two companions (Jesse Wilcox and W. Harry Noeth) to this phenomenon and as they confirmed the observation the drooping flags to the north floated up again but pointed oppositely to those on the south. Thus Lombard Street marked a dividing line between a northeast wind on its northern side and a southeast wind on its southern side. During the next five minutes the flags on the north slowly swung round into a southeast, some into a south, wind.

As we stood marveling at this odd situation we heard a dull rumble of thunder, the first thunder heard; and not until then did the none too brilliant sun and sky begin to be covered with clouds which came from nowhere else. The clouds seemed to form right before our eyes.